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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,163	11/30/2001	M'Hammed Mountassir	14081-1US JA/ld	1250

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EXAMINER

MARSCHEL, ARDIN H

ART UNIT

PAPER NUMBER

1631

12

DATE MAILED: 08/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/980,163

Applicant(s)

MOUNTASSIR, M'HAMMED

Examiner

Ardin Marschel

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The art unit designated for this application has changed. Applicant(s) are hereby informed that future correspondence should be directed to Art Unit 1631.

Applicant's arguments, filed 6/13/03, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

### **ABSTRACT**

The abstract of the disclosure is objected to because it is not on its own separate sheet of paper. The abstract must be submitted on its own sheet of paper. It presently is apparently the abstract of WO 01/18668 which is on a sheet of paper with numerous other information items. Correction is required. See MPEP § 608.01(b).

### **PRIOR ART**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25, 26, and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mozzo (P/N 5,218,526) in view of Martin et al. (P/N 6,487,459) and further in view of Lemelson (P/N 5,871,805).

This rejection is maintained and reiterated from the previous office action, mailed 3/13/03. Applicant argues firstly that the weighting of Mozzo does not reflect the importance of properties as instantly claimed. In response it is noted that applicant has argued regarding weighting in Mozzo where, in contrast, the basis for weighting in support of this rejection was set forth in Martin et al. Thus, applicant's argument is not directed to the basis for the rejection and therefore non-persuasive.

Applicant then argues that Martin et al. does not teach or suggest the application of weighting to the goal function of Mozzo to be equivalent to that of instant claim 25. In response the weighting of Martin et al. was set forth in the previous office action as being directed to the "importance" of different properties to add robustness for handling mismatches between process and prediction practice which was pointed to in Martin et al. in column 14, lines 4-6, and column 15, lines 11-22, as providing the weighting as instantly claimed. This weighting is directed to properties to establish goal or desired versus predicted function property deviations. This clearly is a practice of weighting as instantly claimed contrary to the arguments of applicant, which are therefore non-persuasive.

Applicant then argues that Martin et al. is directed to dynamic systems of signals which does not relate to dynamic (time dependent) functions. In response this argument apparently is directed to examples of signal processing which are not utilized as the basis for this rejection regarding the content of Martin et al. and therefore is non-persuasive as also not being directed to the basis for this rejection.

Applicant then summarizes the Martin et al. weighting regarding trajectory weighting and argues that Martin et al. suggests weighting for the purpose of reducing the error between the predicted and desired behavior as a function of time which is argued further as being different from weighting being reflective of the importance of a characteristic as in instant claim 25. In response, the "importance" weighting as cited in instant claim 25 is directed to the characterization of a product therein as set forth in part i. This importance limitation, as instantly claimed, is only limited in that it is utilized for said product characterization. This is also what Martin et al. utilizes the weighting for. Applicant has, in fact, acknowledged in the above argument that the Martin et al. error reduction weighting is directed to characterizing the desired versus predicted behavior of the process being characterized which is exactly what is instantly claimed. It is noted that the process of Martin et al. is that of control of product production such as set forth in Martin et al. in the very first line of the SUMMARY OF THE INVENTION section in column 2. Thus the "behavior" of the process of Martin et al. is directed to whatever product production occurs.

Applicant then argues that the Martin et al. weighting is incompatible with the present method because the instantly claimed weight factor is determined before any behavior function is established. This argument is inconsistent with the usage of property weights in part iii. of claim 25. The property weights in said part iii. are set forth therein as establishing a goal function in terms of deviations between estimated or predicted properties and goal values. Such deviations are reasonably described as being errors between predicted or estimated and desired properties which is exactly

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what applicant acknowledges is the weighting practice of Martin et al. Additionally, the weighting limitation in part i. of claim 25 lacks any limitation as to whether it does or does not take into account behavior regarding goal functions or predicted properties etc. Thus applicant is arguing a limitation as to how weighting is practiced in part i. of claim 25 which is not present in claim 25 and thus also non-persuasive. Thus, applicant's argument supports the rejection on this issue and is non-persuasive that the rejection is improper on this basis.

Applicant then argues that it is unclear what the effect that the weight factor produces in Mozzo because the properties and parameters in Mozzo are already weighted relative to the mean and spread of data. In response this weighting in Mozzo is a separate practice step from the Martin et al. weighting step and is not seen as being related to each other. The Mozzo weighting is also not the basis for this rejection and thus this argument is not directed to the basis for the rejection and therefore non-persuasive.

Applicant then concludes that it would not be obvious to combine Mozzo and Martin et al. but fails to set forth any argument to negate the motivation to combine which previously was set forth in the office action, mailed 3/13/03, and therefore is an allegation without factual support and therefore non-persuasive.

Applicant then acknowledges that Lemelson teaches minimization of goal function to generate n optimal parameters for the "best of the predicted outcomes". This summary supports this rejection. Applicant then argues that Lemelson utilizes an iterative process for optimization of parameters and does not utilize the weighting

factors of the instant invention. In response the Lemelson description is set forth regarding said optimization or minimization of parameters whereas Martin et al. has been cited regarding weighting factors. Thus, applicant is not arguing the basis for the rejection due to pointing to Lemelson for weighting description which is not utilized as the basis for the rejection and therefore this argument is non-persuasive. Additionally, applicant's pointing to "iterative" practice in Lemelson as not being instantly claimed is non-persuasive because instant claim 25 lacks any limitation as to how minimizing in step iv. is performed other than the minimizing of the goal function to generate optimal parameter values. Therefore minimization may be performed within the practice of said step iv. via non-iterative processes as well as iterative processes. Therefore, the generic minimization wording in instant claim 25, step iv., includes such iterative processes as in Lemelson within its scope and therefore this argument is non-persuasive.

In summary, the combination of references as listed above with motivation to combine as previous set forth in the office action, mailed 3/13/03, is still deemed to describe the instant claim 25 invention.

Applicant then directs arguments to the rejection of instant claims 26 and 34-36 by pointing to arguments that have already been responded to above as being non-persuasive and are equally non-persuasive regarding instant claims 26 and 34-36.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mozzo (P/N 5,218,526) in view of Martin et al. (P/N 6,487,459) and Lemelson (P/N 5,871,805) and further in view of Huse et al. (P/N 5,862,514).

This rejection is maintained and reiterated from the previous office action, mailed 3/13/03. Applicant argues that Huse et al. simulates product chemicals and does not optimize certain properties of a product. In response Huse et al. was previously described as practicing the enhancing of drug discovery and development efficiency which is reasonably interpreted as a type of optimization. This suggestion to enhance drug discovery and development is a product production enhancement which is what the combination of Mozzo, Martin et al., and Lemelson performs which are generically directed and therefore support this rejection as an enhancement or optimization as instantly claimed. Therefore this argument is non-persuasive.

Claims 28 and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mozzo (P/N 5,218,526) in view of Martin et al. (P/N 6,487,459) and Lemelson (P/N 5,871,805) and further in view of Loblely et al. (P/N 6,151,565).

This rejection is maintained and reiterated from the previous office action, mailed 3/13/03. Applicant argues this rejection by reiterating the above arguments regarding the combination of Mozzo, Martin et al, and Lemelson. These arguments have been responded to above as being non-persuasive and are equally non-persuasive as already been responded to above.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mozzo (P/N 5,218,526) in view of Martin et al. (P/N 6,487,459) and Lemelson (P/N 5,871,805) and further in view of Loblely et al. (P/N 6,151,565) and Li (P/N 4,368,509).

This rejection is maintained and reiterated from the previous office action, mailed 3/13/03. Applicant argues this rejection by reiterating the above arguments regarding



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the combination of Mozzo, Martin et al, and Lemelson. These arguments have been responded to above as being non-persuasive and are equally non-persuasive as already been responded to above.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mozzo (P/N 5,218,526) in view of Martin et al. (P/N 6,487,459); Lemelson (P/N 5,871,805); Lobley et al. (P/N 6,151,565) and Li (P/N 4,368,509) and further in view of NIST (Engineering Statistics Handbook).

This rejection is maintained and reiterated from the previous office action, mailed 3/13/03. Applicant argues this rejection by reiterating the above arguments regarding the combination of Mozzo, Martin et al, and Lemelson. These arguments have been responded to above as being non-persuasive and are equally non-persuasive as already been responded to above.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mozzo (P/N 5,218,526) in view of Martin et al. (P/N 6,487,459); Lemelson (P/N 5,871,805); Huse et al. (P/N 5,862,514) and further in view of Lobley et al. (P/N 6,151,565).

This rejection is maintained and reiterated from the previous office action, mailed 3/13/03. Applicant argues this rejection by reiterating the above arguments regarding the combination of Mozzo, Martin et al, and Lemelson. These arguments have been responded to above as being non-persuasive and are equally non-persuasive as already been responded to above.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mozzo (P/N 5,218,526) in view of Martin et al. (P/N 6,487,459); Lemelson (P/N 5,871,805) and

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Huse et al. (P/N 5,862,514) and further in view of Lobley et al. (P/N 6,151,565) and Li (P/N 4,368,509).

This rejection is maintained and reiterated from the previous office action, mailed 3/13/03. Applicant argues this rejection by reiterating the above arguments regarding the combination of Mozzo, Martin et al, and Lemelson. These arguments have been responded to above as being non-persuasive and are equally non-persuasive as already been responded to above.

Claims 33, 43, 46, 50, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mozzo (P/N 5,218,526) in view of Martin et al. (P/N 6,487,459); Lemelson (P/N 5,871,805); Huse et al. (P/N 5,862,514); Lobley et al. (P/N 6,151,565) and Li (P/N 4,368,509); and further in view of NIST (Engineering Statistics Handbook).

This rejection is maintained and reiterated from the previous office action, mailed 3/13/03. Applicant argues this rejection by reiterating the above arguments regarding the combination of Mozzo, Martin et al, and Lemelson. These arguments have been responded to above as being non-persuasive and are equally non-persuasive as already been responded to above.

Claims 40 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mozzo (P/N 5,218,526) in view of Martin et al. (P/N 6,487,459); Lemelson (P/N 5,871,805) and Li (P/N 4,368,509); and further in view of NIST (Engineering Statistics Handbook).

This rejection is maintained and reiterated from the previous office action, mailed 3/13/03. Applicant argues this rejection by reiterating the above arguments regarding

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the combination of Mozzo, Martin et al, and Lemelson. These arguments have been responded to above as being non-persuasive and are equally non-persuasive as already been responded to above.

Claims 41, 42, 45, 47-49, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mozzo (P/N 5,218,526) in view of Martin et al. (P/N 6,487,459); Lemelson (P/N 5,871,805); Huse et al. (P/N 5,862,514) and Li (P/N 4,368,509); and further in view of NIST (Engineering Statistics Handbook).

This rejection is maintained and reiterated from the previous office action, mailed 3/13/03. Applicant argues this rejection by reiterating the above arguments regarding the combination of Mozzo, Martin et al, and Lemelson. These arguments have been responded to above as being non-persuasive and are equally non-persuasive as already been responded to above.

### **INFORMALITIES**

The disclosure is objected to because of the following informalities:

Periods within claims are improper except in abbreviations. A period is required at the end of each claim. Claim 25 contains improper periods in part designations such as "i.". It is suggested to replace such designations with either "i)" or "(i)".

Appropriate correction is required.

No claim is allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

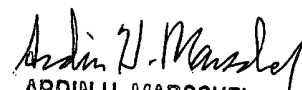
Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703)308-4242 or (703)305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (703)308-3894. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (703)308-4028.

Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instrument Examiner, Tina Plunkett, whose telephone number is (703)305-3524 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

August 12, 2003

  
ARDIN H. MARSCHEL  
PRIMARY EXAMINER